	Application No.	Applicant(s)
Notice of Allowability	09/867,803	CHOI ET AL.
	Examiner	Art Unit
	Leslie Wong	2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *10/31/2007*.

2. ☒ The allowed claim(s) is/are *1-8*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Mr. Michael N. Haynes on February 1, 2008.

The application has been amended as follows:

Specification:

Remove the Attorney Docket Number 11947-1 under the Cross-Reference to

Related Application section.

Claims:

In claim 6, line 10, replace the word "adapted" with --configured --

In claim 8, line 11, replace the word "adapted" with --configured --

Examiner's Remarks

Examiner interprets the term "configured to" to mean "programmed to".

Examiner interprets "A computer-readable medium" to include only volatile and non-volatile mediums to ascertain that the claims fall within the statutory classes of § 101.

Allowable Subject Matter

Claims 1-8 are allowed.

The following is an examiner's statement of reasons for allowance:

Prior art of record fails to teach a combination of elements including obtaining a data set containing no more than one proxy value for each of a plurality of variables, each variable having a plurality of possible values; calculating a percent of proxy values for the plurality of variables that equals a mode of that observation's corresponding cluster's proxy values for the corresponding variables; and automatically assigning a human respondent associated with a determined observation to a cluster responsive to a determination that a value of a variable provided by the human respondent causes the human respondent to be classified as typical of the cluster based upon the percent for at least one observation as recited in independent claim 1.

Prior art of record fails to teach a combination of elements including obtaining a

data set containing no more than one proxy value for each of a plurality of variables,

each variable having a plurality of possible values; estimating a purposeful probability

that a particular possible value from the plurality of possible values for a particular

variable will be purposefully provided by observations assigned to a particular cluster

from a plurality of clusters; and automatically assigning a human respondent associated

with a determined observation to a second cluster of the plurality of clusters responsive

to a determination that a value of a variable provided by the human respondent causes

the human respondent to be classified as an outlier of a first cluster of the plurality of

clusters based upon at least one purposeful probability as recited in independent claim

2.

Prior art of record fails to teach a combination of elements including obtaining a

data set containing no more than one proxy value for each of a plurality of variables,

each variable having a plurality of possible values; calculating a percent of proxy values

for the plurality of variables that equals a mode of that observation's corresponding

cluster's proxy values for the corresponding variables; and automatically assigning a

determined observation, of the plurality of observations to a second cluster of the

plurality of clusters responsive to a determination that a value of a variable causes the

determined observation to be classified as between a first cluster of the plurality of

clusters and the second cluster based upon a output of the percent of the observation

as recited in independent claim 5.

Prior art of record fails to teach a combination of elements including obtaining a data set containing no more than one proxy value for each of a plurality of variables, each variable having a plurality of possible values; calculating a percent of proxy values for the plurality of variables that equals a mode of that observation's corresponding cluster's proxy values for the corresponding variables; and automatically assign a determined observations, to a cluster responsive to a determination that a fraction of values of variables associated with the determined observation correspond to values typical of the cluster based upon an output of the percent for the determined observation as recited in independent claim 6.

Prior art of record fails to teach a combination of elements including obtaining a data set containing no more than one proxy value for each of a plurality of variables, each variable having a plurality of possible values; calculating a percent of proxy values for the plurality of variables that equals a mode of that observation's corresponding cluster's proxy values for the corresponding variables; automatically assigning a determined observation, of the plurality of observations, to a second cluster of the plurality of clusters responsive to a determination that a fraction of a values of variables associated with the determined observation causes the determined observation to be classified as an outlier of a fist cluster of the plurality of clusters based upon a output of at least purposeful probability as recited in independent claim 7.

Prior art of record fails to teach a combination of elements including obtaining a data set containing no more than one proxy value for each of a plurality of variables, each variable having a plurality of possible values; estimating a purposeful probability that a particular possible value from the plurality of possible values for a particular variable will be purposefully provided by observations assigned to a particular cluster from a plurality of clusters; and automatically assign a determined observation to a second cluster of the plurality of clusters responsive to a determination that fraction of a values of variables associated with the determined observation causes the determined observation to be classified as between a first cluster of the plurality of clusters and the second cluster based upon at least one purposeful probability as recited in independent claim 8.

These features, together with the other limitations of the independent claims are novel and non-obvious over the prior art of record. The dependent claims 3-4 being definite, enabled by the specification, and further limiting to the independent claim, are also allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Wong whose telephone number is (571) 272-4120. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES RONES can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leslie Wong
Primary Patent Examiner
Art Unit 2164

LW
February 1, 2008